SPECIFICATION AMENDMENTS

Please amend the paragraph bridging pages 1 and 2 of the specification, as follows:

Automobiles, of course, are known to have an engine which propels drive wheels through a transmission. Typically, transmissions provide a variety of gear ratios to couple the ~~engines~~ engine's output to the driven wheels in order to provide different torque ratios to the wheels. ~~a~~ A driver typically engages the lowest gear state (which provides the highest torque) and accelerates the vehicle up to a selected speed after which the driver shifts to a higher gear. This process continues through the gear range so that the vehicle can reach its top speed. In some instances, the driver decelerates. In so doing, the driver downshifts from a higher gear to a lower gear in order to use the engine to brake ~~break~~ the vehicle or to provide a condition of higher torque for a particular circumstance.

Please amend the paragraph bridging pages 14 and 15 of the specification, as follows:

Support plate 36 has a generally square-shaped central opening ~~44~~ 46 through which gearshift lever 26 may extend. Gearshift lever sensor 12 is mechanically coupled to the gearshift lever in order to sense the gearshift positions thereof. By this it is meant that the gearshift lever sensor follows the gearshift lever. This can include an element that engages the gearshift lever shaft or that is biased into contact. In this illustrated embodiment, though, a first slide bracket 48 is mounted on a pair of spaced apart first rails 50 that are parallel to one another and that flank opening 46. First slide bracket 48 includes a pair of spaced apart first arms 52 that extend transversely between

rails 50 and are interconnected by webs 54 so as to create an elongate opening 56 through which the shaft of gearshift lever 26 extends. Opening 56 is configured such that gear shift lever 26 may move in a first direction, such as left and right, to change the gear shift planes (as described below) while slide bracket 48 remains stationary. However, movement of gearshift lever 26 between different gearshift levels causes slide bracket 48 to slideably move along rails 50. As is illustrated in Figures 3-5, springs 58 bias first slide bracket 48 into a selected gearshift level.

Please amend the first paragraph on page 17 of the specification, as follows:

As discussed more thoroughly below, code plates 72 and 76 are provided with a pattern of transmission ports so that the positions of slide brackets 48 and 62 60, and thus the position of gearshift lever 26 may be optically determined. To this end, wing portion 78 also has openings 79 in a pattern that correspond to the arrays of transmission ports. Wing portion 78further provides a mount that receives a first sub housing 80 that mounts a circuit board 82 that carries a plurality of photo transistors 84 that are electronically coupled to a DB 25 male connector 86. Sub housing 80 82 includes holes 88 that are in a common pattern as phototransistors 84.

Please amend the first paragraph on page 20 of the specification, as follows:

With reference again to Figure 2, a catch 164 is adjustably positioned on clutch pedal arm 134 34 and is held in position by means of a setscrew 166. Latch bolt 148 and catch 164 are positioned to interact with one another

as is illustrated in Figures 10 and 11. Here, it may be seen that latch bolt 148 includes two arm portions 168 and 170, and an enlarged head 172 is disposed at the free end of arm portion 170. When cable 134 is retracted in the direction of arrow "C", latch bolt 148 pivots between an unlatched position shown in Figures 10 and 11 and a latch position as shown in phantom in Figure 11. When in the unlatched position, clutch pedal 32 and clutch pedal arm 34 may be operated in a normal manner by the driver. However, when clutch pedal 32 is depressed, catch 164 moves passed latch pedal mechanism 30 such that, upon actuation of solenoid ~~132~~ 130, latch bolt 148 pivots into the latch condition. When the driver thereafter removes pressure on clutch pedal 32, catch 164 engages head 172 of latch bolt 148 so that clutch pedal 32 is retained in the second or down position. This, then, corresponds to maintaining the clutch pedal in the second position and the clutch assembly in the disengaged state.

Please amend the paragraph bridging pages 21 and 22 of the specification, as follows:

In any event, the speed signal is presented to analog to digital converter 16 which converts this signal to a voltage pulse at a selected frequency corresponding to the rate of revolution of drive shaft 182. This speed signal is then communicated to controller 18 through DB 25 male connector 86. Therefore, controller 18 receives a signal corresponding to the speed of the vehicle as well as the gear state of the transmission as represented by the mechanical position of the gearshift lever 26. During a shifting operation, should the driver depress the clutch ~~brake~~ pedal from the first position shown in Figure 2 to the second position thereby to disengage

the transmission so as to effect a shifting operation, the driver then moves the gearshift lever into the desired gear. However, if the desired gear is too low for the existing speed of the vehicle such that any engine damage may occur, controller 18 generates a control/alarm signal which activates solenoid 130 pivoting latch bolt 48 into the latch position. When the driver thereafter releases pressure on the clutch, the clutch assembly remains disengaged because the clutch pedal cannot move from the second position back to the first position. Contemporaneously, alarm 200 provides an indication, either visual or audible, indicating to the driver that he/she has engaged a gear that is too low for the speed of the vehicle. This latch condition is maintained until such time that the vehicle's speed drops to a safe level, to neutral or otherwise to a higher gear state should the driver shift the transmission.